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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/492,052	01/26/2000	Jin-Soo JEONG	P992070	9396

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EXAMINER

GARY, ERIKA A

ART UNIT

PAPER NUMBER

2685

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/492,052

Applicant(s)

JEONG, JIN-SOO

Examiner

Erika A. Gary

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 3 is objected to because of the following informalities: on line 10, "in" should be inserted after "used". Appropriate correction is required.

Claim 4 is objected to because of the following informalities: on line 14, "MS" should be "MSC". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application

Art Unit: 2685

being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 9, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Dufour, US Patent Number 6,073,010 (hereinafter Dufour).

Regarding claim 1, Dufour discloses a method for controlling a hand-off of an MS (Mobile Station) for home zone service (fixed subscriber area) in a mobile telecommunications system [col. 3: lines 18-21, 61-67], comprising the steps of:

(a) establishing a call connection between said MS and a BTS (Base Transceiver Station) providing the home zone service [col. 5: lines 50-52];

(b) requesting a BSC (Base Station Controller) to make the hand-off to a hand-off targeted BTS via said BTS [col. 4: lines 5-6];

(c.) causing said BSC to determine whether said hand-off targeted BTS belongs to the home zone service [col. 7: lines 14-15];

(d) performing the hand-off of said MS to said hand-off targeted BTS if said hand-off targeted BTS belongs to the home zone service [col. 7: lines 15-18];

(e) determining whether said MS is registered to be used only in the home zone service if said hand-off targeted BTS does not belong to the home zone service [col. 6: lines 7-10];

(f) dropping said call connection if said hand-off targeted BTS does not belong to the home zone service and if said MS is registered to be used only in the home zone service [col. 3: lines 38-41]; and

(g) performing the hand-off of said MS to said hand-off targeted BTS if said hand-off targeted BTS does not belong to the home zone service and said MS is registered to be used both in the home zone service and a non-home zone service [col. 6: lines 1-5].

Regarding claim 9, Dufour discloses the step (f) of dropping said call connection further includes the steps of sending a BTS acknowledging signal to said MS, sending a warning message to said MS, and causing said MS to output said warning message to inform the subscriber of said MS [col. 7: lines 18-20].

Regarding claim 10, Dufour discloses said warning message comprises either one of visual characters, tones, and flash light [col. 7: lines 19-20].

5. Claims 11-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Dufour.

Regarding claim 11, Dufour discloses a method for controlling a hand-off of mobile station (MS) for home zone service (fixed subscriber area) in a mobile telecommunications system [col. 3: lines 18-21, 61-67] including a plurality of base transceiver station (BTSs), a base station controller (BSC) for controlling said BTSs, and a mobile switching center (MSC) for connecting said BSC with one BTS to another BTS or another network [col. 3: lines 10-12; col. 4: lines 25-27], the method comprising the steps of:

(a) causing said MS to connect a communication channel with said BSC via said another BTS in response to either one of an outgoing call and an incoming call [col. 4: lines 58-60];

(b) causing said BSC to store a home zone list and a subscriber service class information of said MS received from said MSC [col. 3: lines 29-38]; and

(c.) causing said BSC to selectively perform the hand-off requested by said MS according to the home zone list and the subscriber service class information [col. 3: lines 64-67].

Regarding claim 12, Dufour discloses the step of dropping said communication channel if said another BTS is not included in the home zone list and if said MS is registered to be used only in the home zone service [col. 3: lines 38-41].

Regarding claim 13, Dufour discloses the step of dropping said communication channel comprises the step of sending an attention message to said MS and causing said MS to output said attention message to inform the subscriber of said MS [col. 7: lines 18-20].

Regarding claim 14, Dufour discloses said attention message comprises either one of visual characters, tones, and flash light [col. 7: lines 19-20].

Regarding claim 15, Dufour discloses the hand-off is performed if said another BTS is included in the home zone list [col. 7: lines 14-17].

Regarding claim 16, Dufour discloses the hand-off is performed if the subscriber class information specifies that said MS registered to be used both in the home zone service and a non-home zone service [col. 6: lines 1-5].

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dufour in view of Kazmi, US Patent Number 6,044,261 (hereinafter Kazmi).

Claim 2 depends on claim 1. As discussed above, Dufour discloses the limitations of claim 1. What Dufour does not specifically disclose are the limitations of claim 2 disclosing additional call establishment steps. However, Kazmi teaches these limitations as will be discussed below.

Regarding claim 2, Kazmi discloses a mobile telecommunications system with multiple home zones wherein the step of establishing a call connection includes

(h) causing said MSC to request the home zone information of said MS from a HLR in response to a request to establish said call connection between said MS and said BTS [col. 7: lines 13-17]; and

(i) causing said HLR to send the home zone information to said MSC [col. 7: lines 17-25]. It is obvious that the home zone information is stored in the BSC once it is received in order to correctly implement the call processing. Further, Kazmi's MSC corresponds to the functionality of the BSC in the present invention and Kazmi's HLR

Art Unit: 2685

corresponds to functionality of the MSC in the present invention. It is well known in the art that functions of the BSC can be performed by the MSC as they are sometimes implemented as one unit and likewise for the HLR and MSC.

Dufour and Kazmi are combinable because they are from the same field of endeavor, that is call processing for mobile telecommunication networks with designated home zones. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Dufour to include Kazmi. Dufour discloses that mobile stations are capable of initiating calls through the BTS and MSC [col. 4: lines 58-60], but does not provide further call establishment details. It is well known in the art to request subscriber profile data before establishing a call to ensure accurate call processing or billing, for example. The motivation for the combination would have been to specifically include the call establishment details for further clarification.

Regarding claim 3, Dufour discloses the home zone information includes a home zone list having a plurality of BTSs providing the home zone service to said MS and a subscriber class information specifying whether said MS is registered to be used in the non-home zone service [col. 2: lines 55-59].

Regarding claim 4, Kazmi discloses the step (i) of sending the home zone information from said HLR to said MSC is achieved through a call proceeding message [col. 7: lines 13-25]. Again, Kazmi's MSC corresponds to the functionality of the BSC in the present invention and Kazmi's HLR corresponds to functionality of the MSC in the present invention.

Regarding claim 5, Dufour discloses the home zone information is stored in a database [col. 2: lines 55-59].

Regarding claim 6, Dufour discloses the database is stored in an LRS (Location Registration System) [col. 2: lines 55-59].

Regarding claim 7, Dufour discloses the step (c.) of determining whether said hand-off targeted BTS belongs to the home zone service is performed by determining whether said hand-off targeted BTS is included in the home zone list [col. 5: lines 63-65].

Regarding claim 8, Dufour discloses the step (e) of determining whether said MS is registered to be used only in the home zone is determined based on the subscriber class information of said MS [col. 6: lines 7-10].

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gallant et al., US Patent Number 5,802,468, disclose a system and method for providing different levels of mobile communication service.

Rune, US Patent Number 6,212,390, discloses a mobile communications system with a restricted mobility area.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erika A. Gary whose telephone number is 703-308-

Art Unit: 2685

0123. The examiner can normally be reached on Monday-Thursday: 7:30-5:00 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 703-305-4385. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750 or to the 2600 Customer Service Office at 703-306-0377.

EAG
July 23, 2002


ERIKA GARY
PATENT EXAMINER